CLAIMS

1.   A method for representing a business process within a computing system, comprising the steps of:

defining the business process using a state-machine based representation where

5   transitions of the state machine represent roles and actions, and states of the state machine represent stages in the business process where the commerce system is waiting for an event to occur;

identifying the actions that participants with particular roles can perform at particular stages of the business process by corresponding state in the state machine and out-going

10 transitions from that state.

2.   The method of claim 1, further comprising altering the business process by changing its state-machine based representation.

3.   The method of claim 1, wherein attributes of a state-machine based representation are tailored to a particular user.

15 4.   The method of claim 1, wherein the state-machine based representation includes means for validating that actions taken by a user are allowed by the state machine description so as to ensure that the user has a role that can perform the requested action at that state.

5.   The method of claim 1, wherein the business processes and their state-machine based representations can be synchronized with other business processes by passing messages between

20 state machines.

6.   A method for executing a business process represented as a state machine running on a computing system, where transitions of the state machine represent roles of participants in the business process and actions that can be taken as part of the business process, and states of the

state machine represent stages in the business process where the business process is waiting for an event to occur, the method comprising:

receiving from a user a command representing a desired action to be performed as part of the business process;

5   checking the role of the user within the business process and a context in which the command occurs;

if the command is allowable by a user with the role within the context, executing the command.

7.   The method of claim 6, further comprising the step of displaying to users a list of possible 10 commands to be issued by the user as part of the business process.

8.   The method of claim 7, where the displayed commands are selected for display based on the user's role within the business process, the context of the business process, and the state of the business process.

9.   The method of claim 6, wherein different versions of a business process represented as 15 different state machines share software for actions common in the different state machines, and share user interfaces by generating a means of user interaction based on the state machine descriptions.

10.   The method of claim 6, where the execution of different instances of a particular business process are handled by storing a current state for each instance of the business process

20 11.   A system for executing a business process represented as a state machine running on a computing system, where transitions of the state machine represent roles of participants in the business process and actions that can be taken as part of the business process, and states of the state machine represent stages in the business process where the business process is waiting for an event to occur, the system comprising:

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means for receiving from a user a command representing a desired action to be performed as part of the business process;

means for checking the role of the user within the business process and a context in which the command occurs;

5   means for, if the command is allowable by a user with the role within the context, executing the command.

12.   A computer program product in a computer readable medium for representing a business process within a computing system, the computer program product comprising:

first instructions for defining the business process using a state-machine based
10 representation where transitions of the state machine represent roles and actions, and states of the state machine represent stages in the business process where the commerce system is waiting for an event to occur;

second instructions for identifying the actions that participants with particular roles can perform at particular stages of the business process by corresponding state in the state machine
15 and out-going transitions from that state.

13.   A computer program product in a computer readable medium for executing a business process within a computing system, the computer program product comprising:

first instructions for receiving from a user a command representing a desired action to be performed as part of the business process;
20   second instructions for checking the role of the user within the business process and a context in which the command occurs;

third instructions for, if the command is allowable by a user with the role within the context, executing the command.